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node near10 (link adj1 device) near10 (config\$7 adj1 ROM)

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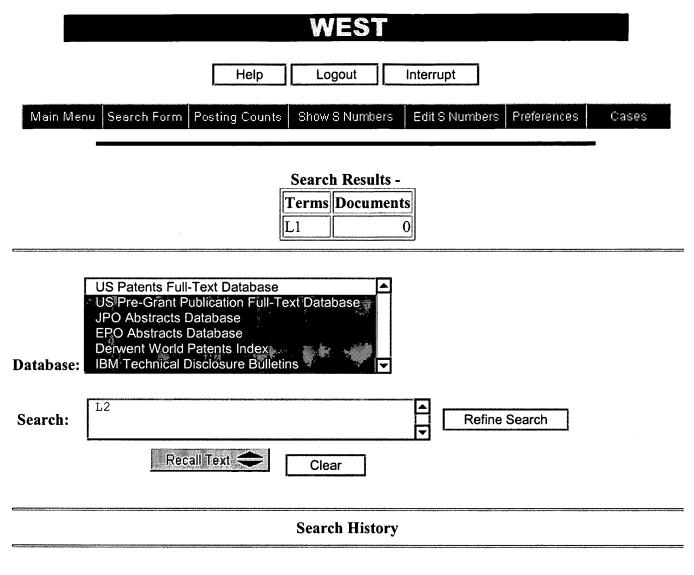
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<u>L3</u>	node same (link near5 device) same (config\$7 near5 ROM)	0	<u>L3</u>
<u>L2</u>	node same (link adj1 device) same (config\$7 adj1 ROM)	0	<u>L2</u>
<u>L1</u>	node near10 (link adj1 device) near10 (config\$7 adj1 ROM)	0	<u>L1</u>

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DB=US	PT; PLUR=YES; OP=OR		
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<u>L3</u>	node same (link near5 device) same (config\$7 near5 ROM)	0	<u>L3</u>
<u>L2</u>	node same (link adj1 device) same (config\$7 adj1 ROM)	0	<u>L2</u>
<u>L1</u>	node near10 (link adj1 device) near10 (config\$7 adj1 ROM)	0	<u>L1</u>

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DATE: Monday, August 04, 2003 Printable Copy Create Case

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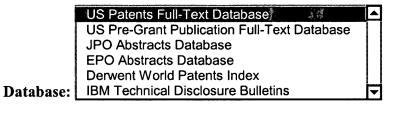


Help Logout Interrupt

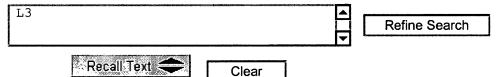
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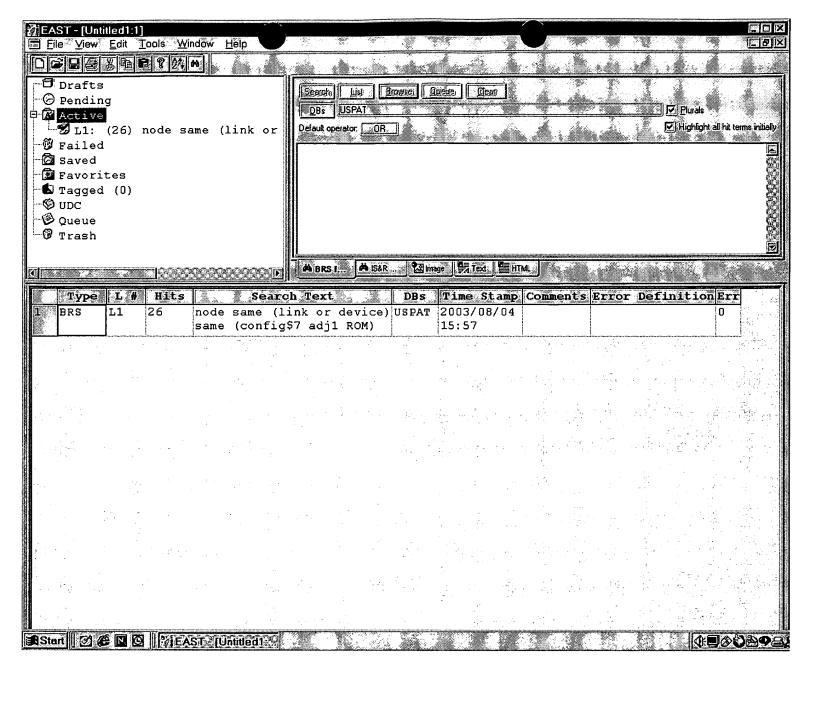
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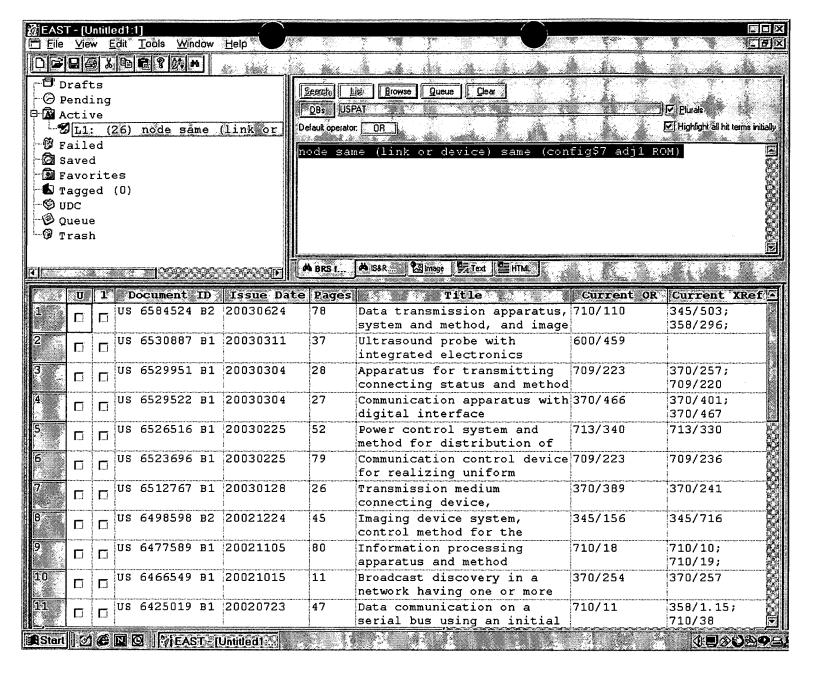


Search History

DATE: Monday, August 04, 2003 Printable Copy Create Case

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DB=USPT; $PLUR=YES$; $OP=OR$		
<u>L1</u> node same (link or device) same (config\$7 near2 ROM)	29	<u>L1</u>





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O- By Author O- Basic O- Advanced	, 22 Feb 1995 Page(s): 3/1 -3/4
Member Services	[Abstract] [PDF Full-Text (228 KB)] IEE CNF
O- Join IEEE O- Establish IEEE Web Account	2 A new approach for a superconducting RAM memory design Smith, S.H., Jr.; Krad, H.;
O- Access the IEEE Member Digital Library	Southeastcon '90. Proceedings., IEEE , 1-4 April 1990 Page(s): 375 -378, 378a vol.2
Print Format	[Abstract] [PDF Full-Text (396 KB)] IEEE CNF

3 The superconductive node-pair memory

Smith, S.H., Jr.; Krad, H.;

Circuits and Systems, 1990., IEEE International Symposium on , 1-3 May 1990

Page(s): 591 -594 vol.1

[Abstract] [PDF Full-Text (392 KB)] IEEE CNF

4 Minimum delay r uting in st chastic netw rks

Orda, A.; Rom, R.; Sidi, M.;

INFOCOM '92. Eleventh Annual Joint Conference of the IEEE Computer and Communications Societies. IEEE , 4-8 May 1992

Page(s): 608 -616 vol.2

[Abstract] [PDF Full-Text (688 KB)] IEEE CNF

5 Competitive r uting in multi-user c mmunicati n netw rks

Orda, A.; Rom, R.; Shimkin, N.;

INFOCOM '93. Proceedings.Twelfth Annual Joint Conference of the IEEE Compu Communications Societies. Networking: Foundation for the Future. IEEE , 28 M April 1993

Page(s): 964 -971 vol.3

[Abstract] [PDF Full-Text (660 KB)] IEEE CNF

6 Scheduled hot-potato routing

Naor, J.; Orda, A.; Rom, R.;

INFOCOM '95. Fourteenth Annual Joint Conference of the IEEE Computer and Communications Societies. Bringing Information to People. Proceedings. IEEE , April 1995

Page(s): 579 -586 vol.2

[Abstract] [PDF Full-Text (680 KB)] IEEE CNF

$7\,$ A reconfiguration algorithm for a double-loop token ring local area ne

Rom, R.; Shacham, N.;

Computers, IEEE Transactions on , Volume: 37 Issue: 2 , Feb. 1988

Page(s): 182 -189

[Abstract] [PDF Full-Text (704 KB)] IEEE JNL

8 Competitive routing in multiuser communication networks

Orda, A.; Rom, R.; Shimkin, N.;

Networking, IEEE/ACM Transactions on , Volume: 1 Issue: 5, Oct. 1993

Page(s): 510 -521

[Abstract] [PDF Full-Text (1056 KB)] IEEE JNL

9 Minimum delay routing in stochastic network

Orda, A.; Rom, R.; Sidi, M.;

Networking, IEEE/ACM Transactions on , Volume: 1 Issue: 2 , April 1993

Page(s): 187 -198

[Abstract] [PDF Full-Text (1164 KB)] IEEE JNL

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Proceeding - Standards	Publication Date: 1-4 Apr 1990 Location: New Orleans, LA , USA
Search	On page(s): 375-378, 378a vol.2 References Cited: 14
O- By Author O- Basic	IEEE Catalog Number: 90CH2883-7 INSPEC Accession Number: 3956235
O- Advanced	Abstract:
Member Services	A brief background of conventional superconductive random access memories (RAMs) and their drawbacks is given. The original node-pair concept is briefly
O- Join IEEE O- Establish I Web Accou	reviewed, and the principles and operation of a 4.3×10 ⁹ ×32-b superconducti node-pair RAM (which is fully accessed by 1280 decoded address lines and is
O- Access the IEEE Memb Digital Libi	each read/write cycle and is well suited for read-only memory (ROM) operation
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WEST

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L4: Entry 9 of 15

File: USPT

Oct 10, 2000

DOCUMENT-IDENTIFIER: US 6131119 A

TITLE: Automatic configuration system for mapping node addresses within a bus structure to their physical location

Brief Summary Text (7):

Within each of the bus ID and physical ID fields a value of all logical "1"s is reserved for special purposes. Accordingly, this addressing scheme provides for up to 1023 busses, each with 63 independently addressable nodes. Each IEEE 1394 compatible device includes a node unique ID which is a 64 bit number saved within a configuration read-only memory (ROM) of the device. The node unique ID is permanent for each device and does not depend on the position of the device within an IEEE 1394 bus. The node unique ID is not used for addressing of data transmissions on the data link layer.

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L4: Entry 9 of 15

File: USPT

Oct 10, 2000

US-PAT-NO: 6131119

DOCUMENT-IDENTIFIER: US 6131119 A

TITLE: Automatic configuration system for mapping node addresses within a bus

structure to their physical location

DATE-ISSUED: October 10, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Fukui; Toshiharu Newport Beach CA

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Sony Corporation Tokyo JP 03 Sony Trans Com, Inc. Irvine CA 02

APPL-NO: 08/ 831063 [PALM]
DATE FILED: April 1, 1997

INT-CL: [07] $\underline{G06}$ \underline{F} $\underline{11/30}$

US-CL-ISSUED: 709/224; 709/227 US-CL-CURRENT: 709/224; 709/227

FIELD-OF-SEARCH: 395/200.51, 395/200.5, 709/221, 709/220, 709/224, 709/227

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

5973722

5991520

November 1999

November 1999

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5261044	November 1993	Dev et al.	345/357
5289460	February 1994	Drake, Jr. et al.	370/245
5394556	February 1995	Oprescu	709/220
5420985	May 1995	Cantrell et al.	710/113
5434860	July 1995	Riddle	370/232
5471474	November 1995	Grobicki et al.	370/437
5537104	July 1996	Van Dort et al.	340/825.52
5563886	October 1996	Kawamura et al.	370/257
5579486	November 1996	Oprescu et al.	710/107
5602841	February 1997	Lebizay et al.	370/413
5606664	February 1997	Brown et al.	709/224
5615404	March 1997	Knoll et al.	710/62
5623610	April 1997	Knoll et al.	710/101
5630173	May 1997	Oprescur	710/40
5664107	September 1997	Chatwani et al.	709/224
5684959	November 1997	Bhat et al.	709/224
5687319	November 1997	Cook et al.	370/256
5689244	November 1997	Iijima et al.	340/825.07
5706440	January 1998	Compliment et al.	709/224
5715475	February 1998	Munson et al.	710/10
5717878	February 1998	Sannino	345/327
5719942	February 1998	Aldred et al.	709/228
5724517	March 1998	Cook et al.	709/227
5727157	March 1998	Orr et al.	709/224
5729685	March 1998	Chatwani et al.	709/224
5734824	March 1998	Choi	709/224
5737319	April 1998	Croslin et al.	370/255
5742847	April 1998	Knoll et al.	710/46
5751967	May 1998	Raab et al.	395/200.58
5754789	May 1998	Nowatzyk et al.	709/233
5764930	June 1998	Staats	710/107
5815082	September 1998	Welmer	340/825.07
5828899	October 1998	Richard et al.	710/8
<u>5848367</u>	December 1998	Lotocky et al.	701/36
5923673	July 1999	Henrikson	714/712
	5261044 5289460 5394556 5420985 5434860 5471474 5537104 5563886 5579486 5602841 5606664 5615404 5623610 5630173 5664107 5684959 5687319 5687319 5687319 5715475 5717878 5719942 5724517 5727157 5729685 5734824 5737319 5742847 5751967 5754789 5764930 5815082 5828899 5848367	5261044 November 1993 5289460 February 1994 5394556 February 1995 5420985 May 1995 5434860 July 1996 5537104 July 1996 5537104 July 1996 553886 October 1996 5579486 November 1997 5602841 February 1997 5615404 March 1997 5623610 April 1997 5630173 May 1997 564107 September 1997 5684959 November 1997 5687319 November 1997 5689244 November 1997 5706440 January 1998 5715475 February 1998 5719942 February 1998 5729685 March 1998 5734824 March 1998 5737319 April 1998 5742847 April 1998 5754789 May 1998 5754789 May 1998 5754789 May 1998 5764930 June 1998 <t< td=""><td>5261044 November 1993 Dev et al. 5289460 February 1994 Drake, Jr. et al. 5394556 February 1995 Oprescu 5420985 May 1995 Cantrell et al. 5434860 July 1995 Riddle 5471474 November 1995 Grobicki et al. 5537104 July 1996 Van Dort et al. 5563886 October 1996 Kawamura et al. 5579486 November 1996 Oprescu et al. 5602841 Pebruary 1997 Lebizay et al. 5615404 March 1997 Knoll et al. 5630173 May 1997 Oprescur 564107 September 1997 Chatwani et al. 5684959 November 1997 Chatwani et al. 5684959 November 1997 Cook et al. 5705440 January 1998 Compliment et al. 5715475 February 1998 Munson et al. 5717878 February 1998 Aldred et al. 5729685 March 1998 Chatwani et al. 5734824 March 1998</td></t<>	5261044 November 1993 Dev et al. 5289460 February 1994 Drake, Jr. et al. 5394556 February 1995 Oprescu 5420985 May 1995 Cantrell et al. 5434860 July 1995 Riddle 5471474 November 1995 Grobicki et al. 5537104 July 1996 Van Dort et al. 5563886 October 1996 Kawamura et al. 5579486 November 1996 Oprescu et al. 5602841 Pebruary 1997 Lebizay et al. 5615404 March 1997 Knoll et al. 5630173 May 1997 Oprescur 564107 September 1997 Chatwani et al. 5684959 November 1997 Chatwani et al. 5684959 November 1997 Cook et al. 5705440 January 1998 Compliment et al. 5715475 February 1998 Munson et al. 5717878 February 1998 Aldred et al. 5729685 March 1998 Chatwani et al. 5734824 March 1998

Wakai et al.

Smyers et al.

348/8

710/100

OTHER PUBLICATIONS

Gary Hoffman et al.; IEEE 1394: A Ubiquitous Bus; Compcon '95, Technologies for the Information Superhighway, Digest of Papers; pp. 334-338, Mar. 1995. Stephen Diamond; IEEE 1394: Status and Growth Path; IEEE Micro; vol. 16, Issue 3; pp. 75-78, Jun. 1996.

"A Bus on a Diet -The Serial Bus Alternative, An Introduction to the P1394 High Performance Serial Bus," Michael Teener, IEEE, Feb. 24, 1992, pp. 316-321. "Design and Analysis of Arbitration Protocols," Fayer El Guibaly, IEEE Transactions on Computers, vol. 38, Feb. 3, 1989, pp. 161-171.

"Fair Arbitration Protocols For Communication Networks," Fayez Guibaly, Victoria,

"P1394 Standard for a High Performance Serial Bus," IEEE Standards Department, Piscataway, New Jersey, Jul. 7, 1995.

"The IEEE-1394 High Speed Serial Bus," R.H.J. Bloks, Philips Journal of Research, vol. 50, No 1/2, pp. 209-216.

ART-UNIT: 278

PRIMARY-EXAMINER: Maung; Zarni

ASSISTANT-EXAMINER: Coulter; Kenneth R.

ATTY-AGENT-FIRM: Haverstock & Owens LLP

ABSTRACT:

An automatic configuration system maps a device address of each node coupled to a bus structure to a network protocol address corresponding to the physical location of the node. A configuration database is built which includes the network protocol address of each node and its corresponding device address. A wiring database, including each device position within the network, is maintained within a network server. Preferably, the network is an IEEE 1394 serial bus network. A topology map, including the device addresses of the nodes within the network and their relationship to each other, is generated during a self-ID sequence and is maintained by the network server. This information is then compared to the wiring database by the network server in order to build a restored topology map including the corresponding device address for each device at each position. A DHCP database is then generated which includes each device address and its corresponding network protocol address. The network protocol address corresponds to the position of the respective device. Using the DHCP database, the network protocol address is maintained for the devices at each position, in order to monitor the positions of the devices and communications from the devices.

42 Claims, 9 Drawing figures

WEST

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L4: Entry 11 of 15

File: USPT

Sep 15, 1998

DOCUMENT-IDENTIFIER: US 5809331 A

TITLE: System for retrieving configuration information from node configuration memory identified by key field used as search criterion during retrieval

Abstract Text (1):

A computer system comprises a plurality of <u>nodes</u> interconnected by point-to-point <u>links</u> and forms a serial bus. Upon system initialization, the bus is scanned and <u>device</u>-specific identification information is retrieved from command and status <u>configuration ROMs</u> associated with each of the plurality of <u>nodes</u>. In one embodiment, a search routine is used to retrieve the <u>device</u> specific information. The search routine begins with the definition of an iterator which is used as a place holder during the search. A simple search begins at the root directory of a hierarchical tree data structure and continues until all directories within the tree have been searched. In more complex embodiments, search relationships (i.e., direction) parameters are defined. Search criteria such as <u>node</u> spec.sub.-- ID and software version numbers are specified and the search is commenced. The search continues until all matching <u>device</u> specific information entries have been returned. The <u>device</u> specific information can be used to load and <u>configure</u> associated drivers for <u>nodes</u>.

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L4: Entry 11 of 15

File: USPT

Sep 15, 1998

US-PAT-NO: 5809331

DOCUMENT-IDENTIFIER: US 5809331 A

TITLE: System for retrieving configuration information from node configuration memory identified by key field used as search criterion during retrieval

DATE-ISSUED: September 15, 1998

INVENTOR-INFORMATION:

STATE ZIP CODE COUNTRY NAME CITY

Staats; Erik P. Brookdale CA Lash; Robin D. Milpitas CA

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Apple Computer, Inc. Cupertino CA 02

APPL-NO: 08/ 626462 [PALM] DATE FILED: April 1, 1996

INT-CL: [06] $\underline{G06}$ \underline{F} $\underline{13}/\underline{00}$, $\underline{G06}$ \underline{F} $\underline{13}/\underline{24}$, $\underline{G06}$ \underline{F} $\underline{13}/\underline{36}$

US-CL-ISSUED: 395/830; 395/500, 395/872, 395/284, 395/681 US-CL-CURRENT: 710/10; 703/22, 709/321, 710/104, 710/52

FIELD-OF-SEARCH: 395/651, 395/681, 395/872, 395/830, 395/500, 395/284

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
4020466	April 1977	Cordi et al.	340/172.5
5202986	April 1993	Nickel	395/600
5343471	August 1994	Cassagnol	370/85.13
5586268	December 1996	Chen et al.	395/250
5598563	January 1997	Spies	395/652
5630076	May 1997	Saulpaugh et al.	395/284
5713009	January 1998	DeRosa, Jr. et al.	395/500

OTHER PUBLICATIONS

ISO/IEC 13213 ANSI/IEEE Standard 1212, "Information Technology--Microprocessor Systems -- Control and Status Registers (CSR) Architecture For Microprocessor Buses", First Edition, pp. 1-125, (Oct. 5, 1994).

Philips Electronics et al, Digital Interface for Consumer Electronic Audio/Video Equipment Draft Version 2.0, IEEE 1394 Trade Association Meeting, pp. 1-47, Part 2--pp. 1-6, (Oct. 1995).

High Performance Serial Bus Working Group of the Microprocessor and Microcomputer Standards Committee, "P1394 Standard for a High Performance Serial Bus", P1394 Draft 8.0v3, pp. 1-364, (Oct. 16, 1995).

Apple Computer, "Inside Macintosh, Devices", Nov. 1994, pp. 3.1-3.48.

"Information Technology--Microprocessor Systems--Control and Status Registers (CSR) Artchitecture for Microcomputer Buses" IEEE 1212, 1994.

"Standard for a High Performance Serial Bus", IEEE 1394, Oct. 1995, pp. ii-364. Apple Computer, "Designing PCI Cards and Drivers for Power Macintosh Computers", Mar. 1995, pp. 1-366.

Apple Computer, Inc., "Interim Draft, Designing PCI Cards and Drivers for Power Macintosh Computers", A8 Draft--Preliminary Information, pp. 1-372, (Mar. 9, 1995).

ART-UNIT: 272

PRIMARY-EXAMINER: Lee; Thomas C.

ASSISTANT-EXAMINER: Perveen; Rehana

ATTY-AGENT-FIRM: Blakely, Sokoloff, Taylor & Zafman

ABSTRACT:

A computer system comprises a plurality of nodes interconnected by point-to-point links and forms a serial bus. Upon system initialization, the bus is scanned and device-specific identification information is retrieved from command and status configuration ROMs associated with each of the plurality of nodes. In one embodiment, a search routine is used to retrieve the device specific information. The search routine begins with the definition of an iterator which is used as a place holder during the search. A simple search begins at the root directory of a hierarchical tree data structure and continues until all directories within the tree have been searched. In more complex embodiments, search relationships (i.e., direction) parameters are defined. Search criteria such as node spec.sub.-- ID and software version numbers are specified and the search is commenced. The search continues until all matching device specific information entries have been returned. The device specific information can be used to load and configure associated drivers for nodes.

12 Claims, 6 Drawing figures

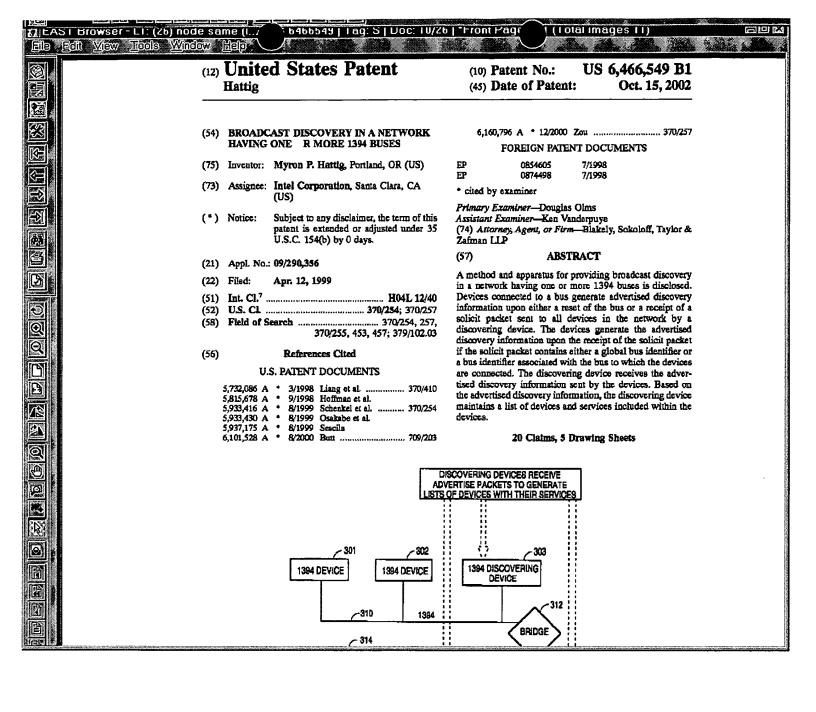
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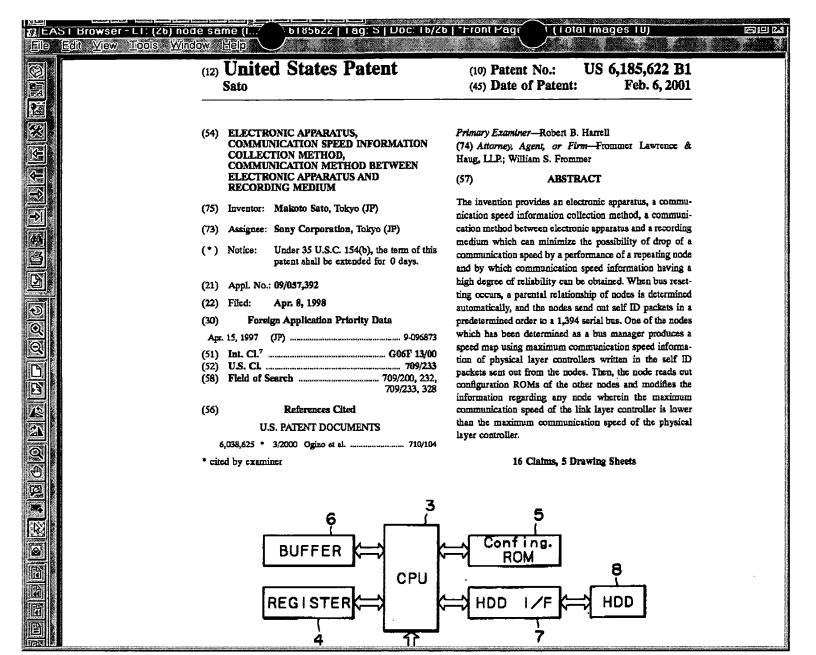
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DB=U	VSPT,PGPB; PLUR=YES; OP=OR		
<u>L6</u>	(4020466 5202986 5343471 5586268 5598563 5630076 5713009)![pn]	7	<u>L6</u>
DB=P	GPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR		
<u>L5</u>	L4	0	<u>L5</u>
DB=U	SPT; PLUR=YES; OP=OR		
<u>L4</u>	node same link same device same config\$7 same ROM	15	<u>L4</u>
<u>L3</u>	node same (link near5 device) same (config\$7 near5 ROM)	0	<u>L3</u>
<u>L2</u>	node same (link adj1 device) same (config\$7 adj1 ROM)	0	<u>L2</u>
<u>L1</u>	node near10 (link adj1 device) near10 (config\$7 adj1 ROM)	0	<u>L1</u>





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L1: Entry 2 of 29

File: USPT

Mar 11, 2003

DOCUMENT-IDENTIFIER: US 6530887 B1

TITLE: Ultrasound probe with integrated electronics

Detailed Description Text (61):

The Adaptec <u>device</u> <u>drivers</u> send Asynchronous Read Requests in response to explicit application requests as well as to interrogate the <u>node's</u> FireWire <u>configuration ROM</u> in response to a SendPAPICommand of <u>P_GET_DEV_INFO</u> or after a bus reset or when an application tries to obtain a handle to a node.

<u>Detailed Description Text</u> (67):

The FireWire specification expects each FireWire node to have a configuration ROM that contains various details about the device, its requirements, and its capabilities. This ROM is to be queried via Read Request packets. There are two types of ROM implementations: a minimal ROM and a general ROM. The former has only one quadlet (4-byte) piece of data indicating a 24-bit vendor ID. The general ROM has many other fields, and many which are optional ranging from the ASCII name of the vendor and device to its power consumption and how to access its capabilities.

Detailed Description Text (68):

One of the required fields in a general ROM is a node unique ID. This consists of the 24-bit vendor ID and a 40-bit chip ID. The 40-bit chip-ID is up to the vendor to assign such that all nodes have unique values. The node unique ID's are required to keep a consistent handle on the device if the FireWire bus is reset or reconfigured during operation. When a device is first opened, the application reads its configuration ROM and determines if it wants to work with it. If so it records its node unique ID and opens a connection to the device via that node unique ID. This is then at any given time mapped to its FireWire ID (16-bit) by the host adapter and its device driver. If the topology changes or a FireWire bus reset occurs, the node's FireWire ID can change, however the node unique ID will not. Thus, in such an event, the adapter automatically determines the new FireWire ID and continues. Thus for smooth operation, particularly with multiple heads attached to the system, implementing node unique IDs and the configuration ROM is required.

configuration ROM shown in FIG. 11, of which the unit directory 1103 is constructed as shown in FIG. 13.

Detailed Description Text (94):

Also in case the user initiates the communication with the printer 902 or with a predetermined device on the communication system by manipulating the control unit 305, the digital camera 901 sends, by wireless transmission, information relating to the function of the digital camera 901 to the printer 902. The function information which is wireless transmitted from the digital camera 901 is received by the wireless interface 309 and is supplied to the printer controller 317. The printer controller 317 converts the function information of the digital camera 901 into data based on the IEEE 1394 standard and stores such data in the second area 1302 of the configuration ROM provided in the 1394 interface 1202. After such storage of the function information of the digital camera 901 in the second area 1302, the printer controller 317 requests, to the 1394 interface 1202, execution of bus resetting. The 1394 interface 1202 outputs a signal, indicating the start of bus resetting, to the communication system, and executes ID setting for the device constituting the communication system and rerecognition of the connection configuration. After the bus resetting, the device on the communication system can judge the function of the printer 902 and the supported communication protocol by reading the information stored in the first and second areas 1301, 1302 of the unit directory 1103 of the printer 902. In this manner the communication system can recognize the digital camera 901 and the printer 902 as a single device, or the printer 902 itself as a compound device having the function of the digital camera.

Detailed Description Text (100):

The image processing unit 312 decodes the JPEG compression encoded image data, utilizing a JPEG decoding program file stored in an unrepresented ROM or decoding data transmitted from the digital camera 901 together with the compressed image data. Also the image processing unit 312 converts the decoded image data into a data format, suitable for printing, utilizing the memory 313 and stores the converted data in the memory 313. The image data stored in the memory 313 are supplied to the printer head 216 and printed therein.

Detailed Description Text (125):

The memory medium for supplying the program codes may be composed, for example, of a floppy disk, a hard disk, an optical disk, a magnetooptical disk, a CD-ROM, a CD-R, a magnetic tape, a non-volatile memory card or a ROM.

End of Result Set

Print Generate Collection

L1: Entry 1 of 1

File: USPT

Mar 4, 2003

DOCUMENT-IDENTIFIER: US 6529522 B1

TITLE: Communication apparatus with digital interface

US Patent No. (1):

6529522

Drawing Description Text (11):

FIG. 11 is a view showing the structure of a configuration ROM provided in the 1394 interface;

Drawing Description Text (13):

FIG. 13 is a view showing the configuration of a unit directory in the configuration ROM; and

Detailed Description Text (33):
The image processing unit 312 decodes the image data, subjected to the JPEG compression encoding, utilizing a JPEG decoding program file stored in an unrepresented ROM or decoding data transmitted from the digital camera 201 together with the compressed image data. Also the image processing unit 312 converts the decoded image data into a data format, suitable for printing, utilizing the memory 313 and stores the converted data in the memory 313. The image data stored in the memory 313 are supplied to the printer head 216 and printed therein.

Detailed Description Text (79):

An initial area of 512 kbytes in the register space becomes the nucleus of the known CRS (control and status register) architecture. The register space further includes a configuration ROM of 1024 bytes and a unit space for storing information specific to each device.

Detailed Description Text (80):

The configuration ROM is constructed for example as shown in FIG. 11 for representing the function of each node. A bus information block 1101 stores a company ID, indicating the supply company of each device. A route directory 1102 stores information specific to each device and the storage position of a next unit directory 1103, which stores control/status information relating to the function of each device, and control/status information on the communication protocol supportable by each device in hierarchic manner. Each device can judge the function provided therein and the supported communication protocol by reading the content of the unit directory 1103.

Detailed Description Text (86):

Referring to FIG. 12, the digital camera 901 is composed of an image pickup unit 301, an image processing unit 302, an encoding/decoding unit 303, a recording/reproducing unit 304, an operation unit 305, a control unit 306, a display unit 307, a wireless interface 308 and a ROM 1201. The ROM 1201 stores information relating to the function of the digital camera 901. At the start of communication with the printer 902, the control unit 306 reads the information data stored in the ROM 1201 and sends such data to the printer 902 by wireless communication.

Detailed Description Text (88):

Also in the second embodiment, the 1394 interface 1202 is provided therein with a

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L1: Entry 4 of 29

File: USPT

Mar 4, 2003

DOCUMENT-IDENTIFIER: US 6529522 B1

TITLE: Communication apparatus with digital interface

Detailed Description Text (80):

The configuration ROM is constructed for example as shown in FIG. 11 for representing the function of each node. A bus information block 1101 stores a company ID, indicating the supply company of each device. A route directory 1102 stores information specific to each device and the storage position of a next unit directory 1103, which stores control/status information relating to the function of each device, and control/status information on the communication protocol supportable by each device in hierarchic manner. Each device can judge the function provided therein and the supported communication protocol by reading the content of the unit directory 1103.

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L1: Entry 4 of 29

File: USPT

Mar 4, 2003

US-PAT-NO: 6529522

DOCUMENT-IDENTIFIER: US 6529522 B1

TITLE: Communication apparatus with digital interface

DATE-ISSUED: March 4, 2003

INVENTOR-INFORMATION:

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ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Canon Kabushiki Kaisha Tokyo JP 03

APPL-NO: 09/ 041122 [PALM]
DATE FILED: March 12, 1998

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO APPL-DATE

JP 9-057606 March 12, 1997 JP 10-051954 March 4, 1998

INT-CL: [07] H04 L 12/46

US-CL-ISSUED: 370/466; 370/401, 370/467 US-CL-CURRENT: 370/466; 370/401, 370/467

FIELD-OF-SEARCH: 370/401, 370/402, 370/419, 370/420, 370/421, 370/463, 370/466, 370/467, 370/468, 370/485, 370/486, 370/487, 370/489, 370/490, 370/545, 370/453, 709/249

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected	Search ALL

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
5563886	October 1996	Kawamura et al.	370/466
6157650	December 2000	Okuyama et al.	370/401

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0254565	January 1988	EP	
0537061	April 1993	EP	

0619662 October 1994 EP

OTHER PUBLICATIONS

IEEE Std 1394-1995, "IEEE Standard for a High Performance Serial Bus", The Institute of Electrical And Electronics Engineers, Inc., IEEE Computer Society, Aug. 30, 1996, p. 1-172 (complete copy of standard).

ART-UNIT: 2664

PRIMARY-EXAMINER: Chin; Wellington

ASSISTANT-EXAMINER: Duong; Frank

ATTY-AGENT-FIRM: Fitzpatrick, Cella, Harper & Scinto

ABSTRACT:

The communication apparatus is equipped with a first communication interface for executing communication based on a first communication method, and a second communication interface for executing communication based on a second communication method different from the first communication method. The communication apparatus sets ID information for identifying device executing communication by the first communication method, for device which executes communication with the second communication interface.

In this manner plural device supporting different communication methods can be recognized as device belonging to a same communication system.

16 Claims, 14 Drawing figures

WEST

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Search Results - Record(s) 1 through 10 of 11 returned.

☐ 1. Document ID: US 6529951 B1

L4: Entry 1 of 11

File: USPT

Mar 4, 2003

US-PAT-NO: 6529951

DOCUMENT-IDENTIFIER: US 6529951 B1

TITLE: Apparatus for transmitting connecting status and method of displaying

connecting status

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw, Description

☐ 2. Document ID: US 6425019 B1

L4: Entry 2 of 11

File: USPT

Jul 23, 2002

US-PAT-NO: 6425019

DOCUMENT-IDENTIFIER: US 6425019 B1

TITLE: Data communication on a serial bus using an initial protocol which being

executed in a transaction layer

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw Desc Image

☐ 3. Document ID: US 6334161 B1

L4: Entry 3 of 11

File: USPT

Dec 25, 2001

US-PAT-NO: 6334161

DOCUMENT-IDENTIFIER: US 6334161 B1

** See image for Certificate of Correction **

TITLE: System for reverse data transmission flow control wherein command is transferred by asynchronous transfer mode while data is transferred by isochronous transfer mode

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw Desc Image

4. Document ID: US 6237049 B1

L4: Entry 4 of 11

File: USPT

May 22, 2001

US-PAT-NO: 6237049

DOCUMENT-IDENTIFIER: US 6237049 B1

TITLE: Method and system for defining and discovering proxy functionality on a

distributed audio video network

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw, Desc Il Image

☐ 5. Document ID: US 6160796 A

L4: Entry 5 of 11

File: USPT

Dec 12, 2000

US-PAT-NO: 6160796

DOCUMENT-IDENTIFIER: US 6160796 A

TITLE: Method and system for updating device identification and status information

after a local bus reset within a home audio/video network

Full Title Citation Front Review Classification Date Reference Sequences Attachments Draw Desc Image

☐ 6. Document ID: US 6141767 A

L4: Entry 6 of 11

File: USPT

Oct 31, 2000

US-PAT-NO: 6141767

DOCUMENT-IDENTIFIER: US 6141767 A

TITLE: Method of and apparatus for verifying reliability of contents within the

configuration ROM of IEEE 1394-1995 devices

Full Title Citation Front Review Classification Date Reference Sequences Attachments Drawt Desc | Image

☐ 7. Document ID: US 6038625 A

L4: Entry 7 of 11

File: USPT

Mar 14, 2000

US-PAT-NO: 6038625

DOCUMENT-IDENTIFIER: US 6038625 A

TITLE: Method and system for providing a device identification mechanism within a

consumer audio/video network

Full Title Citation Front Review Classification Date Reference Sequences Attachments Drawi Desc - Image

☐ 8. Document ID: US 6038617 A

L4: Entry 8 of 11

File: USPT

Mar 14, 2000

US-PAT-NO: 6038617

DOCUMENT-IDENTIFIER: US 6038617 A

TITLE: Auto configuration of a serial ROM by sensing an output of the serial ROM after transmission of a read instruction and an x-bit address to it's input

Full Title Citation Front Review Classification Date Reference Sequences Attachments KWIC Draw. Desc | Image

9. Document ID: US 5968152 A

L4: Entry 9 of 11

File: USPT

Oct 19, 1999

US-PAT-NO: 5968152

DOCUMENT-IDENTIFIER: US 5968152 A

TITLE: Method and apparatus for extending key space in a plug and play ROM

Full Title Citation Front Review Classification Date Reference Sequences Attachments KOMO Drawi Desc Image

☐ 10. Document ID: US 5809331 A

L4: Entry 10 of 11

File: USPT

Sep 15, 1998

US-PAT-NO: 5809331

DOCUMENT-IDENTIFIER: US 5809331 A

TITLE: System for retrieving configuration information from node configuration

memory identified by key field used as search criterion during retrieval

Full Title Citation Front Review Classification Date Reference Sequences Attachments KWIC Drawi Desc | Image Print **Generate Collection**

Terms	Documents
l1 and L3	11

Display Format: TI **Change Format**

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